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# VICKS MAGAZINE

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No. 4

## JAPANESE GARDENING SKILL.

THE many beautiful plants received from Japan, and by which our gardens have been greatly enriched, are testimonials to the love of nature and of gardening by the Japanese. That their horticultural efforts should produce some bizarre, grotesque or fantastic results is not more strange than that results of similar character have been popular at times in our own, and in European, horticultural history, and exhibitions of which are even now being made by our gardeners and florists. Our own progress in garden art has carried us beyond the style where beauty was seen in holly, yew and other evergreen trees clipped and trained into the form of men, women and animals, as once was customary, and specimens of which remain to-day in old places in England, and Germany, and in other parts of Europe. But we have not yet completely passed the period of tracing the forms of animals and implements in flower beds on the lawns of our large parks, or of constructing similar forms with cut flowers, though year by year there is a lessening display of the exercise of such skill. It is not, therefore, with any boastful sense, or in any spirit of self-laudation, that we now consider to some extent the work of this kind, as shown by our Japanese confreres.

The illustration on this page shows a specimen of maple sixty years of age, and which by having its roots confined in a small pot, its shoots, or points of growth, repeatedly pinched through all these years, is now not more than about one foot in height. This specimen was purchased in Yokohama for Her Royal Highness, the Princess of Wales. The trunk of this specimen, as may be noticed, has by some means, become hollow, and only the outer wood and bark encircles three-quarters of its circumference. Many hands, no doubt, have helped to bring along the plant—to supply it with the water necessary to keep it alive, and to torture it, to repress excess of growth, so that its annual increase in height should be only one-fifth of an inch; certainly there is here a display of patience worthy of a better cause. The same exercise of patience and skill by the Japanese gardener is also shown, and by much better results in the production of a great number of varieties of the maple. Some years since we received a catalogue from Japan containing descriptions of more than two hundred varieties of maples, the variations consisting in the forms and the colors of the leaves and the pose of the branches. Another commendable instance of Japanese garden art is that of the *Lilium auratum*, with its numerous varieties of bloom, and still another is the Japan Iris.

We have all heard of the Japanese devotion to the morning glory, their Asagao, how beautiful it becomes under the manipulations of their gardeners, and what varied forms it assumes. The *Century Magazine*, more than a year ago, gave a number of illustrations of these flowers, showing wonderful departures from the original form, but none of them appealing to our sense of the beautiful, on the other hand most of them appeared to be miserable contortions. On the following page are shown representations of the morning glory from photographs received from

Japan a few months since. One is of a plant growing in a pot, and is considered a great achievement, the flower, instead of the natural bell-shape, consisting of about a dozen long, narrow, strap-shaped petals. It is, of course, quite odd, but how can it be considered more beautiful than the flower in its natural shape with all its graceful curves?

The other illustration gives photographic likenesses of six kinds of double flowers of the morning glory which can be considered in no other light than floral monstrosities, with no excuse for their existence. It is true, that these flowers might be compared favorably with our double-flowered geraniums, but in regard to the latter a valid excuse for them may be that, as the plants are intended principally for summer blooming, when the flowers are to display their colors at a distance, they are more lasting than single flowers.

This is the only claim that can be properly made for double-flowered geraniums. In the production of forms of double flowers, true art must certainly recognize limitations to these forms, and it is suggested that when apparent symmetry is sacrificed to grotesqueness, a graceful arrangement of the parts of a flower to disorder and confusion, then the gardener's efforts are malign and degrade his skill. Actual symmetry, such as seen in flowers in a natural condition, cannot be expected in double flowers, but they may have apparent symmetry.

To illustrate this point let us take some examples. One of the families of plants most of whose members show a decided tendency to duplicate the petals, or the sepals, or in other words the showy parts of their flowers, is the Crowfoot or Buttercup family, the Ranunculaceæ. In this family is found the clematis, and quite a number of double flowered forms of it have been produced within the last fifty years. In all these the varieties numerous multiplied parts are superposed, so that the general, original form of the flower is retained. In the anemone, a member of the same family, double forms are very numerous, especially of *A. coronaria*, and *A. hortensis*, but the tendency

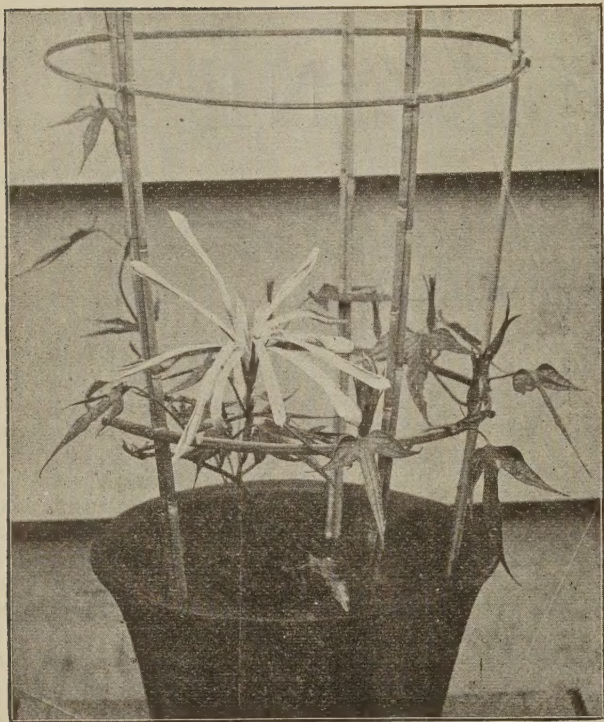


ACER TRIFIDUM

About one foot high—sixty years old—sold to H. R. H. the Princess of Wales. Yokohama, November, 1898. L.

to duplicate the floral envelope is seen in nearly all the species, even where there is no effort on the part of the grower to encourage it. Sometimes there are but few additional parts. This tendency is seen in our native hepatica, of the same family, growing wild; but in all cases the apparent symmetry, or general original outline of the flowers, is preserved. There is no violent contortion, such as appears in the double flowered Japanese Morning Glory. Similarly we see, in the same natural family of plants, double buttercups and double peonies, their centers filled up with numerous petals, but the general form of the flower remaining the same. So also the double pink or carnation and the double rose do not have the appearance of being tortured or twisted or malformed; on the contrary they suggest exuberance. As already noticed the double geranium cannot be easily ranked in the same category—there is a sense of violence expressed by its crowded, amorphic, half-developed petals. The double nasturtium is another flower whose grace is destroyed by doubling, nor would it be much trouble to name a number of others, for some of out





*A high triumph of  
Japanese gardening skill*

JAPANESE  
MORNING GLORY

own gardeners as well as the Japanese, in their efforts to improve flowers have lost, to some extent, that fine appreciation of the beautiful revealed in nature, which may be experienced when approached as admiring observers, rather than as masters attempting to divert her courses. Viewed in a broader way, the careful naturalist has evidence that all the various forms of flowers may have originally come from the same stock, that they are plastic, as are all parts of a plant, under the varying conditions, and the forms they may assume are interminable. But with the little skill that man has yet acquired he should approach nature reverently, nor attempt to guide in ways where he is yet ignorant. In other words, let the gardener or florist cease his particular efforts when he finds that they lead in the wrong direction, and far away from nature, whose model should always be his highest standard of proper form, excellence and beauty.

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#### POT AND SAVORY HERBS. Money in the Garden for Women.

**T**HERE is one way for women fond of gardening to earn a supply of spending money in an easy way. It is by raising herbs for druggists and market men; the latter will take most of them while green, a regular supply being delivered every second day. It is light work after the planting has been accomplished, and some of the roots being perennial, they do without replacing for several years. Lavender, sage, thyme, mint and hoarhound are among the perennials. Sage and parsley are most commonly planted, but thyme, mint, hoarhound, marjoram, summer savory and lavender are as easily raised and pay fully as well. When raising them for market men, make your arrangements with them early in the season, agreeing to furnish so much per week of the green herbs, in bulk or tied in bunches, as his business requires. The balance not used in this way can be dried and the dried product can be readily sold to druggists.

During the summer, parsley, marjoram, mint, sage and thyme are freely used in large markets, parsley, summer savory, and thyme being sent out with soup pieces, mint with lamb, and the sage is used for seasoning chopped meats. Leaves for decorating can, also, often be sold to these men, Swiss Chard and the variegated beet being especially valuable for such work.

When drying the herbs, pick the young tender shoots before the plants show signs of blossoming, a dry day being best for the work. They should be well shaken to remove the dirt, and then spread on papers to dry, the color being better if dried in a room where there is no sunlight and no currents of air. The mass should be turned every day, and will be dry in a few days; the herbs can then be

put up in paper bags and hung in a dry place. It is well not to sell too early, as if it is offered before the bulk of the new crop is in the market it will be called last year's. Most of these common herbs are very hardy, lavender being the least hardy of any of those mentioned. It can be protected in the fall, however, so that many of the plants will live over winter.

It is a good idea with any of the perennials to sow a few new seeds each spring, to take the place of the plants that winter-kill, and to keep a new stock always coming on. They transplant easily and it is always better to root out an old, slow growing plant and replace it with a new one. The herbs can be cut several times during the season, and if properly cut, the last crop will be as good as the first.

My plan is this:—as soon as the plants have grown new shoots in the spring to the height of three inches, I cut off all the large leaves and new shoots, then allow them to grow again, cutting as before. This is kept up during the whole season, care being exercised not to cut any hard, woody stems, but just the large leaves and tender stems. The herbs require a rich soil to do well, and the hoe or rake must be used often, to keep the ground stirred around the roots of the plants. If the hose can be turned on every night during the hot, dry summer, the plants will quickly pay for the extra attention, but mine have never had any water except the rain that falls on them. There is some difference in the seed to be procured when planting these herbs, and one should always get the best. The broad leaved thyme is the best variety of that plant, and the mammoth leaved sage will be found the best of its class.

Z.

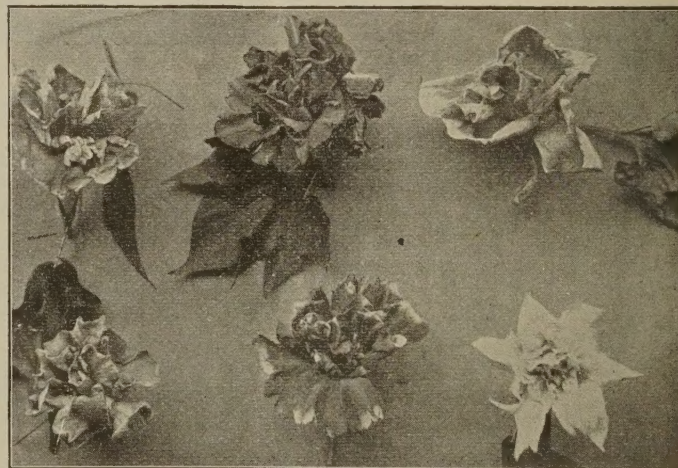
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#### ELEAGNUS LONGIPES,

**E**LEAGNUS LONGIPES, or Japanese Oleaster, is a hardy, deciduous ornamental shrub or recent introduction, and upon trial is found to be as valuable an addition to our list of fruits as to our ornamental shrubbery. In cultivation it forms a shrub of bushy habit, growing from four to six feet in height by as much in breadth, with oval foliage, dark green above and silvery white underneath. The bark is also quite attractive in winter, being of a reddish brown color. It blooms during the month of June, the bright yellow flowers being borne in the greatest profusion on long stems around the branches, and are succeeded by small oval-shaped fruit about half an inch long, and of a deep orange red color, studded with small golden scales or spots, giving it a very attractive and ornamental appearance. Not only is the fruit edible, but to most persons it is very palatable, possessing a sharp but pleasant flavor, while by many it is preferred to currants or gooseberries. And it bids fair in time to have a market value.

A shrub so interesting, and promising well, deserves special attention and a place on the lawn, as well as in the fruit garden, but wherever grown it should be given an open situation and sufficient space in which to properly develop. Occasional applications of good stable manure will be found beneficial, and this should be applied in the fall and carefully dug in around the shrubs in the spring. This shrub has been so recently distributed that one cannot say what amount of pruning will be required, but from present indications an occasional removal of the dead and partially decaying wood, together with such shoots as show a tendency to grow out of place, will be all that is required. CHAS. E. PARNELL.

*Floral Park, N. Y.*



DOUBLE FORMS OF  
JAPANESE MORNING GLORY



## REPORT OF SECRETARY OF AGRICULTURE.

The report of the Secretary of Agriculture for 1898, is a carefully prepared paper, showing in detail the work that has been performed during the past year in his department, and giving suggestions for the future. Below are brief summaries of some of the topics mentioned;

*Weather Bureau.*—Observation and forecast stations have been extended around the Caribbean Sea, and increased through the interior of the country, especially in the mountain States.

*Farmers' Bulletins.*—The Department is unable to furnish to Members of Congress as many Farmers' Bulletins as their constituents desire. The farmers want them, Congressmen want them, and the appropriation for this purpose should be enlarged.

*Scientific Exploration.*—The Department has four scientific explorers abroad, getting seeds and plants—one in Russia, one in the countries around the Mediterranean, one in the China seas, and one in South America.

*Forestry.*—The treeless region is now getting vigorous attention. Species adapted to dry regions are being introduced. Mr. Pinchot, the new chief, is planning to introduce better methods of handling forest lands in public and private ownership, the private owners paying the expenses of Department agents who give instructions. A million acres in twenty States have been offered for experimentation, and 100,000 acres are now under management. A study of fire prevention and fire fighting is being made.

*The Grasses.*—The best pastures produce animals at least cost. The Division of Agrostology studies grasses and the grass requirements of localities. The Department is endeavoring to find grasses and legumes for worn-out lands in the East and South, and binding grasses, to arrest sand drift.

*Agriculture in Alaska.*—A practical scientist was sent to Alaska to select sites for experimental work—to test grains and grasses, legumes, and vegetables, and study the possibilities of future production. He grew all of these crops with great success. Alaska will grow along the coast oats, barley, flax, rye, grasses, and vegetables of as good quality as many of our Northern States produce. The interior will be explored next summer, in order that its capacity to support population may be learned.

*Road Inquiry.*—Good roads save time and expense. Steel rails are, perhaps, the coming material where hard rock is not convenient.

*Experiment Stations.*—The experiment stations are more effective than ever before, and are doing more original work. The feeding of mankind is being studied in connection with State institutions.

*Nature Study in Common Schools.*—Nature studies should be introduced into the common schools, so that the young farmer's mind may be turned early to life-work studies.

*Inspection of Foreign Goods.*—There is an evident necessity for the inspection of many articles imported from foreign countries that contain substances injurious to the public health. It may become necessary, where there is ground for suspicion and where need exists to identify the source, to open packages at the port of entry, as it is proposed in foreign countries to do with our own exports in certain cases.

*Butter Shipments.*—The experimental exports of butter to Great Britain have been continued, and a decided gain is evident in the favorable impression made by our first quality butter upon the best class of the butter trade in London and Manchester.

*Paris Exposition.*—The Paris Exposition of 1900 affords an opportunity to extend to the people of Europe a knowledge of the extent and variety of our agricultural resources. This duty is imposed upon the Secretary by special act of Congress, and preparations to carry it out to the best of his ability are already under way.

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## HYDRANGEA OTAKSA MONSTROSA.

THE LARGE clustered Hydrangea Otaksa has already become a favorite spring and summer blooming plant, and its admirers will also be interested in the variety Monstrosa, an illustration of which appears on this page. This variety was sent out by the French horticulturist Lemoine to whom we are indebted for many beautiful plants of our gardens. When the plant is well grown it produces heads or cymes of flowers much larger than those of the species, some by actual measurement showing a diameter of twelve inches. Like H. Otaksa, this variety is not hardy in this climate but is easily grown in a cool greenhouse, and the method of propagation and general cultivation is the same as that of the species, and the other tender hydrangeas. They require a light porous soil with good drainage. As soon as the flowering season is over the stems should be cut back, encouraging new ones to grow; these should be from three to six in number according to the strength of the plant and any that appear weak should be cut away, leaving only those which are strong and grow vigorously. During the growing season an abundance of water should be supplied, in fact, if the drainage is good, too much cannot be given. This attention to watering is necessary during the summer season whether the plants are kept in their pots or are planted out. If constantly grown in pots they should be shifted from time to time as they grow, as they require plenty of pot room. When cool weather comes the pots should be placed in cold frames, the plants that have been growing in the open ground being potted. In the frames where they can be protected if necessary, but with the sash off in all fine weather the young growth will have opportunity to ripen. Later, when steady cold weather comes the pots can be stored away in a cellar or in the cool part of a greenhouse, where they will not be encouraged to grow. In January plants for early flowering can be brought forward while the others are to be held in reserve.

HYDRANGEA  
OTAKSA MONSTROSA

## LANTANAS.

MANY who grow lantanas as house plants are unaware of their value as bedders. They thrive in any good garden soil, and endure cheerfully the summer sun. They come into bloom early, and bloom continuously. The foliage grows luxuriantly and forms a fit setting for the showy verberna-like clusters of bloom, white, cream, buff, sulphur, orange, lilac, and various shades of pink and rose. These colors blend in the most charming manner, and alternate in the same plant according to age and condition. The outer rows of florets open first, and as the color of most sorts varies as the blossoms age, the same cluster exhibits several different hues at the same time. Out of doors the colorings become deeper and more vivid, and the habit of the plant more vigorous and luxuriant.

Lantanas must be rigorously pinched back early in the season to insure compact growth, as their tendency, when left themselves, is to throw out long, straggling branches, and few of them. Many fine varieties of lantanas are offered in the trade and the plants are cheap. Plants may be raised from seed; the seed, however, is slow to germinate, but if it is fresh, it is almost sure to reward the patient waiter. To be sure it is not always easy to obtain fresh seed, and it is of but little use for the amateur to experiment with any other. The seeds are covered with a purplish dried pulp and are very hard and horny. Many expedients have been recommended for softening or penetrating this shell, such as long soaking, filing, or chipping the covering. My own method is to soak the seed just long enough to soften the dried pulp, when it may be easily be rubbed off. The seeds are allowed to dry, and then boiling water is poured on and off instantly, the application being repeated several times.

As the soil dries on the surface, sprinkle lightly so as to keep it always moist, but not wet. Last of all, and constantly possess your soul in patience; and eventually nearly every seed will sprout, if fresh and of good quality. Seedling lantanas are more vigorous than rooted slips, and the pleasure of growing them amply compensates for the patience they demand. As the flower clusters fade they should be removed, and the flowering branch cut back to induce further branching, thus securing an increased blooming surface.

MRS. W. A. CUTTING.

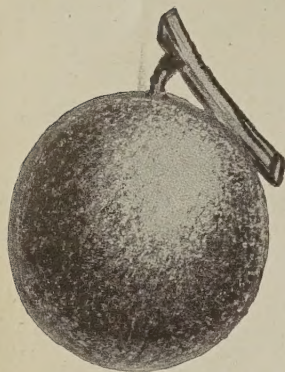
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## NEW EARLY BLACK GRAPE.

A grape originated with Mr. W. R. Brown, of Newburgh, N. Y., and called by him Brown's Seedling, is said to be of fair quality, sweet, berries and clusters of average size, productive, hardy, as early or earlier than Champion.



## THE KUMQUAT.

THE KUMQUAT—ROUND FORM,  
NATURAL SIZE.

house or even window culture, being as easily cared for as the Otaheite Orange, and in pot culture need not become more than eighteen inches in height; so treated it blooms and bears fruit freely. The flowers are like orange blossoms and delicately fragrant. Two years ago an account was given of a small tree in Florida, not over six feet high, which bore that year 2000 fruits.

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## PANSIES.

There is probably not a child who does not love the pansy, and the majority of grown people regard it with much favor. We see pansies grown in people's door yards even when no other flower is cultivated there. The one great reason for its popularity is the ease with which it may be grown, and the plentiful returns it gives for care spent upon it. Pansy plants are raised by getting good seeds and sowing in shallow boxes in the house, or hot-beds out doors. In the house seeds may be started in February, March or April. Fill the box with fine prepared dirt, bringing it nearly to the top. This soil need not be so very rich, good garden loam will answer very well. Make the top level and smooth and scatter the seeds as evenly as possible. When this is done, sift some soil over them until they are covered about a quarter of an inch in depth. Next give a light sprinkling, and then wet a piece of spongy paper, or brown wrapping paper, and put over the top of the box, set in a sunny window, free from drafts, and in about eight days expect to see the first tiny shoots appear. Do not pour water over the soil, but let all moisture be given through the paper, which should be frequently moistened.

By May the plants ought to be large enough to be set out of doors. Have the ground where they are to be placed spaded deep and mellow, and plenty of well decayed manure worked in, as pansies delight in a rich soil. Select a cloudy day for setting out the plants, and put them about eight inches apart each way, firming them down well. By July they will be in blossom and will continue to flower till late in the fall. In the meantime work the soil every week, give the plants all the water they can drink. Keep the blossoms well picked off, so no seed pods—which take the strength from the plants—can form, and give fertilizer if it should be needed. The best fertilizer is liquid manure, if it is not too strong. To my mind a situation which receives the benefit of the sun till noon and is shaded for the remainder of the day, is an ideal place for a pansy bed. There is really nothing complex about growing these winsome little flowers, and the slight effort on the grower's part will be more than compensated.

BENJ. B. KEECH.

New York.

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ANNUAL MEETING OF THE PENNSYLVANIA  
HORTICULTURAL SOCIETY.

The intention of this meeting was evidently to dispose of and utterly rout the San Jose scale, no matter what the fore-runner in the shape of a printed program may have announced. The scale was attacked soon after the necessary dry bones of records, minutes, etc., had been buried, and the fusillade kept up all through the papers on "Fruit Growing in Pennsylvania," "Some of our Mistakes," "Marketing of fruits," etc., until in the "Question Box," the attack became general.

After President S. B. Heiges' annual address at the opening of the Wednesday evening session, Professor W. G. Johnson, State entomologist of Maryland, took up the scale topic in a very thorough and thoroughly interesting way, illustrating "A Successful Warfare against the Scale," with lantern slides which were forcible object lessons. Peaches received a share of the general attention on Thursday morning,

when John F. Boyer discoursed upon "The Peach as a Profitable Fruit," and J. Horace McFarland gave a witty, pointed talk about "Hale's Peaches." But Professor Fernald's talk about the Gypsy moth, soon brought up the allied theme of the scale again, and it was discussed at length among the members. Professor Johnson said that the successful Maryland law gave State officers the power to destroy all trees found infested with the scale, and thought that State aid, in every case, was necessary to combat it. He answered a number of questions as to the working of the Maryland law, and convinced the Pennsylvania members that a similar law for this State was needed. President Heiges then appointed a committee to attend to the matter. This question of legislation occupied nearly the whole of the Thursday afternoon session.

Some valuable papers from absent members were read, among them "Nature Study in Schools," by Frank M. Bartram, and "Principles of Improvement in Fruits and Flowers," by Professor Thomas Meehan. It is quite a disappointment to younger members, who hold him in much reverence, not to see Mr. Meehan at these later meetings. Some gaps in the program were filled most instructively by visitors from Washington and Maryland, Professor H. E. Van Deman among them.

Oval Form,  
Natural SizeTHE KUMQUAT  
OR CITRUS JAPONICA

Governor Stone's inauguration and the still progressing Quay struggle were causes of defection on the part of some of the brightest local members, but it was generally agreed that this meeting of the Society was by far the most helpful and progressive one yet held.

The fruit exhibit, while not at all surprising in beauty and variety, was good and of good kinds.

On Thursday morning the election of officers, postponed from the morning session of Wednesday, was held, re-electing the officers of last year with the exception of Recording Secretary, Cyrus D. Fox, of Reading, who declined re-election, and is succeeded in office by E. B. Engle, of Waynesboro. Samuel C. Moon also took the place of Hubbard Bartram, of Middletown, as treasurer. The next meeting will be held in Pittsburgh.

L. G.

Harrisburg, Pa. January 20, 1899.

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## TWO GRAND PLANTS.

I WONDER that the people who desire large ornamental plants do not more often grow the India rubber plant and the banana. Both are more quickly grown than palms, and require so little care. Moreover, the former never is troubled with any sort of insect pests, unless badly neglected. I will give my personal experience with the rubber plant.

I was a small girl and my father let me select a plant from a wagon load that a city florist had sent to our little town. I at once picked out a rubber plant about a foot in height. The man said to give it a good rich soil, what water it required and a sponge bath once a week. I followed his advice, and how I enjoyed watching the leaves unfold from



their pinkish green wrapper. Each year it was put into a larger pot until at last it found a home in a very large cedar bucket that had castors upon it. In about three years it had reached the ceiling, and just before it became necessary to cut it back it produced four small fig-like fruits at the base of the top leaves. So far as we could see, it never had any blossoms. When there was no more space for it to grow upward, it was cut back to within three feet of the ground, and it put out four branches. It was now moved out of the bay window that for so many years had been its home, and placed in a corner of the room. This corner was opposite the door which was opened into the hall, and one evening when the mercury was down near the twenties, a party of young folks left the outside door open while they were saying good night, and the frosty air came full upon my tree. From that night it began to lose its leaves rapidly, and before spring came it was dead.

We had always sponged the leaves on both sides at least once each week, and when the morning sun was very hot the shades were drawn, for it seemed to droop in the hot sun. During the warm weather, it unrolled a leaf each week, but when it became colder, the time was



FICUS ELASTICA  
OR RUBBER TREE

lengthened to one each month. Last spring I purchased a rubber plant and it is now doing as well as did my long lost-friend. If a plant is cut back when quite small, a very broad showy tree is the result, but if one has but little room to spare it is better to let it grow straight up.

My friend claims for the banana all that I claim for the rubber plant, and a little more. It is much like my favorite, but it has leaves that are much larger, and has a much more tropical look to it. Another point in its favor is that it can be wintered in the cellar. It is a very hungry plant, and in its growing season a very thirsty one, too. If you start with a small plant, as most people do, put it in a small pot, give it plenty of the richest of soil and all the water it will drink. It is fond of the warm sunshine when it is growing, and is a plant that will stand a good deal of neglect, but if well cared for will amply repay for the care. When the pot is full of roots put it into a larger one, and be sure to use rich soil. Make the soil of one-half well rotted manure, one-fourth of good soil, and the other fourth of clean sand. Sift and mix these together well, and after potting, or repotting, soak well with tepid water. When the plant is growing, it is almost impossible to over-water it if it has proper drainage, but when the season for resting comes, it must be watered only when it is dry. It can be bedded out in a sheltered spot where the wind will not

whip its leaves into shreds; but take it up early so that it may become used to the temperature indoors, before the time comes to keep a steady fire. Give the plant a sponge bath once a week with a soft sponge or cloth and tepid water. This will keep it free from the tiny red spider that is the cause of so much mischief to house plants.

If the plant is large in the spring, it must be cut back to the ground when you set it out, or it will not be possible to find room for it in the fall; or, if you have no room for it in the house, have it carefully dug up without disturbing the roots and wrap the ball of earth in stout gunny sacks and lay it away carefully in the cellar until spring. Do not water it or molest it in any way while it reposes in the cellar, and the spring will find it all the more ready to grow after its long nap.

MAY LEONARD.

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#### A HEDGE OF RAMBLER ROSES.

THE Rambler roses, beautiful in any situation, are especially so when grown in hedge form. In place of the stiff looking hedges of evergreen so common a few years ago, those of airy, graceful appearing plants seem more in favor, and no plant yields itself more readily to training than the Rambler rose. The frame for the hedge is the first consideration, and it can be almost any material and made in any form. Perhaps as good a screen as any for the purpose is one like an ordinary grape trellis, made of fence posts and wire. Set the posts eight feet apart. The end posts can be squared and made more ornamental if desired, but after the first year they do not show, so it matters little. The wires should be put on so that they can be stretched when necessary; often they seem quite slack after a season or two, and we make them taut in this way: Fasten the wires securely to one end post and pass them through all the others; after they are through the last end post wind each wire around a piece of stick which can then be turned around until the wires are perfectly firm and straight. No other fastening is required. The sticks are made from stuff two inches square and are each eight inches long. About three inches near the middle of the stick is rounded so that the wires will wind round it easily, and each spring the sticks can be turned once or twice to keep the wires in good order. Ordinary chicken netting can be used with less trouble at the start, but it is inclined to stretch badly after a few years and is not so durable.

The plants can be set eight feet apart, or midway between each two posts. Fasten the new shoots in place as fast as they get of sufficient length; little pruning will be required, as it is long growth one wants until the hedge is established, but all old rough wood should be removed in the spring, and occasionally the ends of rank growing branches be pinched to cause branching.

The plants are so perfectly hardy that it makes them more valuable for hedges, as often not even the extreme tips of the branches will be killed by freezing. All the varieties are also remarkably free from mildew, which is an added advantage. The flowers have no fragrance, yet bees gather on them in great numbers, probably on account of the bountiful supply of pollen found on the roses. Rose bugs do not molest them, though other roses in the same garden are badly infested. The plants blossom later than the June roses, beginning just as they are almost gone, thus prolonging the rose season three or four weeks. M. MEADE.

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#### A NEW HARDY LILY.

Lilium umbellum, received in England from Japan, promises to be a valuable addition to our garden lilies. So far as yet tested, it appears to be a plant of vigorous constitution, grows about two feet in height, and produces from three to five of its beautiful flowers on a stem. The color varies from deep pink to a clear or deep rose, and the flowers have a pleasing fragrance. On account of its general appearance it is compared to Lilium Kramerii, but is superior to it in its coloring. It promises to be easy of culture, and -robably may soon become largely grown.

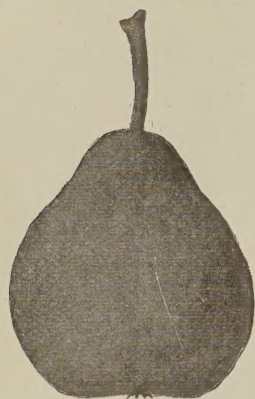
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#### ANOTHER GREENHOUSE.

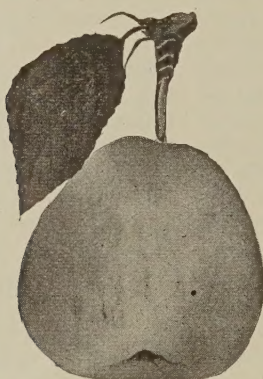
Greenhouses like measles are "catching." My neighbors have caught the greenhouse fever from me. One little girl has plants, but nothing more; so she got her father to dig a hole in the back yard four feet deep, put a roof over it, put a rough back to it, and four sash in the south side, which cost just ten cents each, and then covered over the dugout with new stable manure. A piece of old carpet is the door at the foot of the steps which are cut in the ground, and another piece covers the steps themselves, another old carpet covers the sash on very cold nights, and here, at an expense of forty cents in cash, and a little work, this brave girl has got over four dollars worth of plants, and a like sum in experience. She is a young mother to some beautiful flower children.

DR. H. G.

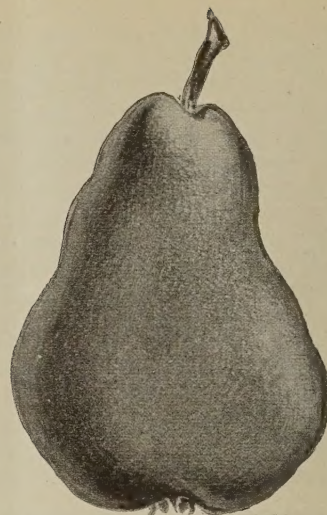




GIFFARD



MARGUERITE



BARTLETT

### PEARS FOR THE FAMILY GARDEN.

ON THIS and the following page are presented illustrations of twelve choice varieties of pears which ripen in succession from the earliest to the latest, affording a supply for the table, of this delicious fruit, from early in August to April or May, or through nine months in the year. The importance and value of fruit in the diet ration is well known, and by all competent authorities it is given a high place, and the people of this country recognize its fitness as food by the large amounts bought and sold in our markets, and used by the wealthy and well-to-do families. Notwithstanding the large amounts of fruits consumed in this country, a great part of the population have but a small supply of it, and those most lacking it, next to the poorer classes of the cities, are the greater portion of farmers families and the residents of small villages, the very ones best situated to have it in abundance. The inadequacy of its supply is proverbial. As this class is not within reach of the general markets, its supply must come by its own efforts. Outside of the immediate range of communities engaged in commercial fruit-growing, the paucity of fruit in rural communities is surprising to city dwellers, who always have a sufficiency at hand.

Although the tree dealer traverses the country by its highways and byways, and the press is continually supplying information on fruit-growing, still the insufficient supply for a large portion of country dwellers continues to prevail. Many farms can claim only the meager fruit supply of a few currants, if fortunately they are saved from the worms, perhaps a few blackcap raspberries, and possibly some apples for a few weeks or a few months, and of many others the supply is still less; and the same is true of many village residences with a quarter of an acre to two acres of land. With the great variety of fruits adapted to the varied portions of this country, there is no reason why the tables of the country dwellers should not have an abundant supply of fruit the year round; strawberries, cherries, currants, gooseberries, raspberries, blackberries, plums, pears and apples, can be raised almost everywhere, and the peach and other more tender fruits in large portions of the country. With a proper selection of pears and apples and the summer fruits, a regular and uninterrupted supply may be had the year round. Pear trees come early into bearing and give their crops with more regularity than apples, and

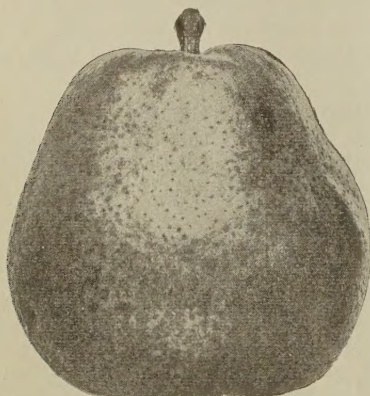
an abundant supply of this fruit should not be lacking to country dwellers, or to any who have sufficient space. The selection of varieties here presented has been made for the family garden, and, with reference to the quality of the fruit, and the health, vigor and productiveness of each variety; and all are adapted to a wide range of territory. The illustrations have been mostly made from photographs of the fruits and are proportionate in size, and all reduced one-half, or, rather one-half the diameter of each, so that represented full sizes each would present four times the surface that now appears. The list will serve as a guide to buyers, and the set of twelve trees, or two of each, would make a fine family orchard.

The time of ripening noted for each variety has reference especially to the middle range of States, and is relatively correct for all localities. The illustrations are arranged to show the order of ripening commencing at the left hand of the upper row and moving across both pages, and in the same order in the lower row. In the descriptions which follow, the sizes and quality designated by numbers, are as given in the *Catalogue of Fruits* recommended for cultivation in the various sections of the United States, by the American Pomological Society, and revised by a committee of the society, of which T. T. Lyon was the chairman. This catalogue is published by the U. S. Department of Agriculture, and is Bulletin No. 6, of the Division of Pomology. The other points mentioned in the descriptions correspond to those of the same Catalogue; and as given by Thomas, and Downing, and other authorities.

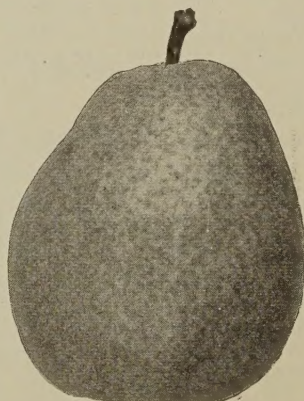
Both size and quality are designated by a scale of numbers ranging from one to ten, thus indicating these points with much comparative precision.

GIFFARD.—Size medium, 5 to 6, pyriform, Bosc-shaped, but usually shorter, though somewhat variable in form; skin greenish yellow, often with a reddish tinge on the sunny side; flesh juicy, melting, slightly vinous and exceedingly agreeable; quality 6 to 7; season middle of August; tree somewhat straggling in growth, with slender, reddish shoots; a good bearer. Can be grown on the quince.

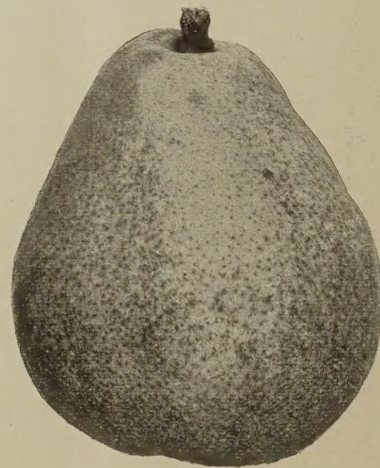
MARGUERITE.—Size medium or small, 4 to 5; obovate; skin greenish yellow with brownish red cheek, and covered with greenish dots; flesh fine-grained, melting, juicy, vinous, of excellent quality, 5 to 6; season



ANGOULEME

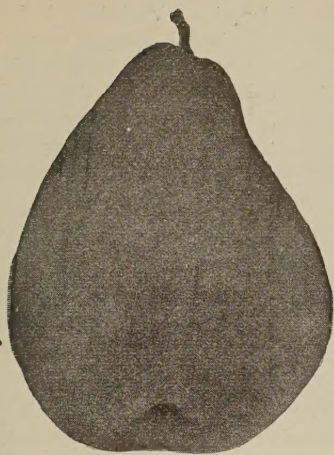


LAWRENCE

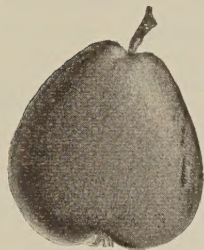


ANJOU

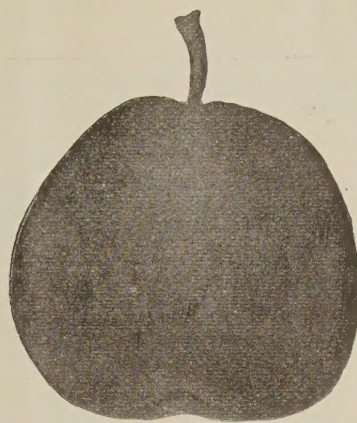




LOUISE BONNE



SECKEL



SHELDON

last of August. Tree a vigorous, upright grower and abundant bearer, and comes into bearing early. Can be grown on the quince stock.

**BARTLETT.**—A large handsome fruit; size 8 to 9; obtuse pyriform or pyramidal; skin a clear yellow, sometimes with a faint blush; flesh white, fine-grained, buttery, melting, sweet, and with a rich musky flavor; season early to medium or about the first of September; quality 6 to 7; a vigorous, erect grower, with yellowish shoots. The tree comes into bearing at a very early age, and is very productive. This is one of the best known and most highly prized of early autumn pears as a table fruit, and is also very popular for canning. If grown as a dwarf tree it requires to be double worked, but, as it comes into bearing at an early age, it is seldom grown otherwise than on the pear stock.

**LOUISE BONNE.**—Fruit large, pyriform, size 7 to 8; skin smooth, pale yellowish-green with a brownish-red cheek; flesh yellowish white, very juicy, buttery, melting, rich, faintly sub-acid; quality fine or 4 to 5; season last of September or first of October. Tree very vigorous both on pear and quince stock, and a regular and great bearer, with fruit usually large and fair, and the quality somewhat better on the quince stock.

**SECKEL.**—Fruit small, obovate, size 3 to 4; skin brownish green, becoming rich yellowish brown, with a deep brownish-red cheek; flesh very fine-grained, sweet, juicy, melting, buttery, and of the highest flavor, its quality being marked as 10; season September and October. Tree a stout, erect grower, very hardy and very productive; requires to be grown on pear stock. The Seckel is a standard variety in nearly all parts of this country, and the fruit is found in every market, and esteemed of the highest excellence.

**SHELDON.**—Fruit medium or large, roundish, size 5 to 6; skin greenish-russet, becoming cinnamon-brown; flesh melting, rich, juicy, perfumed and delicious, quality 5 to 6; season October. Tree vigorous, erect, and a good bearer; requires to be grown on the pear stock. The engraving here presented of this variety was not made from a photograph but from a drawing, and is probably somewhat too large to grade properly in size with the other illustrations.

**ANGOULEME.**—Very large, obtuse-pyriform, sometimes oblong-obovate, size 10; skin greenish yellow, often with some russet and reddish dots; flesh yellowish-white, melting, buttery, juicy, and is best in quality when grown on the quince stock; quality 5 to 9; season October and November. This large pear has been widely disseminated, and succeeds over

a wide range of country. It is known in Europe as Duchesse d'Angouleme, and in this country mostly as Duchess, but the name here given is that of the American Horticulture Society, and should be so recognized.

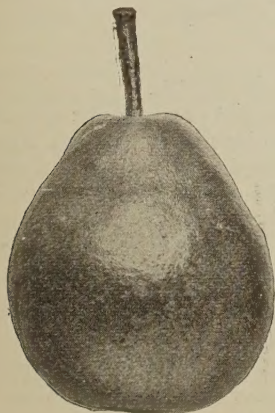
**LAWRENCE.**—Fruit of medium size, or 5 to 6; pyriform or obovate; skin lemon-yellow, with numerous small dots; flesh whitish, melting, buttery, with a rich, aromatic flavor; quality 7 to 8; season November to December. A moderate, spreading grower, and an early and abundant bearer, an excellent late autumn and early winter variety.

**ANJOU.**—Fruit above medium size, or 7 to 8; obtusely-pyriform or obovate; skin bright yellow, or sometimes greenish yellow and with a red cheek in the sun; flesh yellowish-white, fine-grained, buttery, melting, and with a sprightly, vinous flavor; quality excellent or 8 to 9; season November and December, but a good keeper, and with care may frequently be held to the middle or last of January. Tree a vigorous grower, and a regular and abundant bearer of fruit nearly uniform in size, and does well on both the pear and the quince stock. Thomas says of this variety: "The hardiness, uniformity, reliability, excellence and long keeping qualities of the Anjou, render it one of the most valuable of all pears."

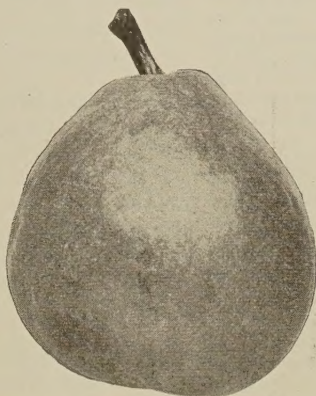
**WINTER NELIS.**—Size medium or below, 4 to 5; roundish-pyriform, often obovate; skin yellowish-green, much russeted; flesh yellowish-white, fine-grained, buttery, melting, rich and sweet, or slightly vinous, aromatic, highest quality, or 10; season December and January. Tree a slender, straggling, but free-grower, a heavy and regular bearer. It requires to be top-grafted on a vigorous, upright stock to make a good tree.

**MALINES, (Josephine de Malines.)**—Fruit medium size, or 5 to 6; roundish-oblate or roundish-obovate; flesh light rose or salmon colored, buttery, perfumed, and of fine quality, 5 to 6; season January and February. Tree a moderate and irregular grower; fruit grows in clusters. Succeeds well on the quince. Considered one of the most delicious of the winter pears.

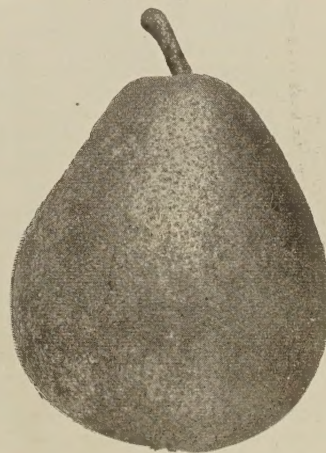
**P. BARRY.**—Fruit above medium size, or becoming large; obtuse, pyriform; skin orange-yellow covered with russet dots and blotches; flesh very juicy, buttery, fine-grained, with a sprightly, rich and excellent flavor. This is considered the very best late winter pear, or more correctly a spring pear, as its season of ripening is usually in April, and it has been kept in good condition until the last of May. The fruit is compared to the Anjou in texture of flesh, and to the Winter Nelis on account of its juiciness, and the color of the skin. The tree is a poor grower, and requires to be top-grafted.



WINTER NELIS



MALINES



P. BARRY



# VICKS ILLUSTRATED MONTHLY... MAGAZINE

ROCHESTER, N. Y., FEBRUARY, 1899.

*Entered in the postoffice at Rochester, N. Y., as second class mail matter.*

CHARLES W. SEELYE, Editor.

ELIAS A. LONG, Associate.  
Formerly conductor of *Popular Gardening*

Publishers are invited to use any articles contained in this number, if proper credit is given.

VICKS ILLUSTRATED MONTHLY MAGAZINE is published at the following rates, either for old or new subscribers; these rates include postage:

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FREE COPIES. One free copy additional will be allowed to each club of ten (in addition to all other premiums and offers) if spoken of when club is sent.

All contributions, subscriptions and orders for advertising should be sent to VICK PUBLISHING CO., ROCHESTER, N. Y.

## Hints for February.

**FLOWER SEEDS TO SOW.**—Seeds can be started this month in the greenhouse, and in frames in southern localities, or in the house window if one is sure of the suitable conditions, of the following kinds which require to be well established in early spring; *Ageratum*, *Abutilon*, *Tuberous Begonia* and *Begonia Vernon*, *Centaurea gymnocarpa*, *C. candidissima* and *C. Clementei*, and *Cineraria maritima*—the last five named for bedding—*Calceolaria*, Chinese pinks, *Coleus* for bedding, *Cyclamen*, *Forget-me-not*, *Gloxinia*, *Grevillea robusta*, *Gypsophila*, *Heliotrope*, *Lantana*, *Oleander*, *Pansy*, *Perilla* for bedding, *Salvia splendens*, *Smilax*, *Solanum capsicastrum* and *S. ciliatum*, *Thunbergia*, *Verbena*.

**RESTING PLANTS.**—Some kinds of plants that have been resting can now be given warmer quarters in good light and be supplied with water and encouraged to start.

**STARTING CUTTINGS.**—Cuttings of *chrysanthemums*, *carnations*, *fuchsias*, *geraniums*, *tea roses* and many other kinds of plants can be started during the month.

**GROWING PLANTS.**—Care should be taken to give plants air on fine days, and to avoid excess of heat, to keep the foliage clean and free from insects. Hard wooded plants that are grown on from year to year in pots, such as *oranges*, *lemons*, *camelias*, etc., may now need a top dressing of fresh rich soil.

**VEGETABLES.**—Seeds of *cabbage* and *celery* can be started in hotbeds for early crops, to be transferred later to coldframe to harden off. Onions intended to be raised by transplanting the young sets, should be started from seeds this month.

**GRAPE VINES.**—It would be better that the work of pruning vines in the garden and vineyard should all be completed this month.

**PLANING FOR THE SEASON'S WORK.**—Complete plans should be made while there is yet some leisure, for all the various kinds of work to be done during spring and summer; these plans should be put in writing, and then followed through the season, deviating from them only as improvements and necessary changes make it desirable.

\* \*

## Bird Studies.

In regard to the Red-Shouldered Hawk :

"This is a bird of both woodland and open, and while not perhaps as much of a field hunter as the Red-tailed Hawk, yet is frequently seen on the wooded border of meadows. He is one of the so-called 'Chicken Hawks,' but is really no enemy to the farmer, as careful investigation has shown that small animals such as field mice, shrews, frogs, etc., form by far the larger part of his diet. He is not a bird or chicken hawk, but a mouse hunter. You will know him in any plumage by his reddish shoulders. Sometimes in immature birds this marking may be somewhat obscured, and it is always duller in these than in birds in full plumage, but it is always present."

"Passing up the village street when the stately elm is at its best in early June, you are almost sure to hear a series of bold, gay whistles. Presently there is a flash of bright orange through the green foliage, and with a resonant wren-like chatter, you see the Baltimore Oriole alight near his inconspicuous mate. She would, perhaps, have escaped your attention but for his advent, for the nest she is building is well protected by the leaves about it and its own neutral color, though it hangs at the extremity of the drooping branch above your head. The nest is a marvel of industry and skill. Both birds work at weaving it but the female is the director of work and the chief laborer. These nests are usually suspended from stout twigs near the extremity of the limb or branch, and from fifteen to fifty feet from the ground. They are made of various plant-fibres, stray horse hair, and fine strips of bark."

These passages taken from Scott's Bird Studies, will give an idea of the interesting manner in which this book is written. It gives an account

of all the land birds of Eastern North America. Each bird is fully and carefully described, with the habits of nest building, eggs, young, food, etc., and other points of interest. The half-tone illustrations are unequalled, and are from original photographs; they number 166, many of them being full page. The book is a medium sized quarto, beautiful in every feature, handsomely bound. Price \$5.00. Published by G. P. Putnam's Sons, New York. It is most entertainingly written, and is sure to gain the attention both of young and old.

\* \*

## Fertilizers.

The above is the title of a handsomely printed manual by Edward B. Voorhees, A. M., Director of the New Jersey Agricultural Experiment Stations, and Professor of Agriculture in Rutgers College. It is a volume of 335 pages, and forms one of the Rural Science Series. Published by the Macmillan Company at the popular price of one dollar.

This volume for the use of farms, gardeners, and fruit-growers is one of the highest utility, and the acknowledged ability of the authority leaves no doubt of its reliability. Its subjects embrace natural soil fertility, and the source of loss from the soil of the fertilizing elements. The functions of manures and fertilizers, and the need of artificial fertilizers; the different sources of nitrogenous, phosphatic and potassic fertilizers, miscellaneous fertilizing materials. The purchase of fertilizers, chemical analysis of fertilizers; calculation of commercial values; methods of use of fertilizers; the character of fertilizers required by different crops.

Thus it will be seen that the subject is treated in its entirety, and an examination of its contents will show that the work is done with a fidelity that commends it to the everyday use of the practical soil-worker. It occupies a place which has not heretofore been filled, and should find a place in the working libraries of all cultivators of the soil.

\* \*

## Thirty Poisonous Plants.

Under this title the Department of Agriculture has issued Farmers Bulletin, No. 86. This is a reproduction, in part, of Bulletin No. 20, of the Division of Botany, sent out in July, 1898, and entitled "Principal Poisonous Plants of the United States," and of which notice was made in this journal in September 1898.

The statement is made, by the Botanist of the Department, that the publication of that bulletin instead of satisfying the demand for information on poisonous plants has increased it, and in order to supply the innumerable requests received since its appearance, it has seemed desirable to republish the information which it contained, in a condensed, less expensive, and more popular form. As this Bulletin is distributed free, those wishing it should request it by addressing the Secretary of Agriculture, Washington, D. C.

\* \*

## Hornbeam with Colored Leaves.

European journals note that in the communal woods of Rohrbach, near Landau, Bavaria, a fine specimen of the European Hornbeam, *Carpinus Betulus*, has been discovered with colored or variegated leaves. The young shoots, or growth, in the spring appear with a shade of clear rose, and each new leaf and new shoot maintains this shade until autumn. Then the leaves become a deep red, and before they fall they change to a brownish red or brown. It is also to be remarked that sometimes the young leaves and shoots of this hornbeam, at the end of several weeks, become of a bright sulphur yellow color, changing to golden yellow. This variety will be propagated and in time offered for distribution. As the hornbeam is a tree of slow growth, it may be some years before the new variety makes its appearance in this country.

\* \*

## Vim Sewing Machine.

The judges have decided that the best name for the new sewing machine is one suggested by Mrs. J. R. Dewberry, Sylacauga, Alabama, and the machine has been ordered shipped to her from the manufactory.

Mrs. Dewberry's idea was to use the initial letters of VICKS ILLUSTRATED MAGAZINE, forming the word "V.I.M.," and this machine will hereafter be known by this name. We congratulate Mrs. Dewberry upon her success, and feel sure she will be pleased with the sewing machine.

\* \*

THE *Florist's Exchange* calls our attention to the fact that the article on the Double White Flowered Champion which was given in our January issue, page 46, was taken from its pages and not from the *Florist's Review* as credited, and the correction is hereby made.



## Letter Box.

In this department we shall be pleased to answer any questions relating to Flowers, Vegetables and Plants, and to publish the experiences of our readers.

EDITORS.

### Saxifrage.

Will you tell me what is the name of the plant I send. I have it in a hanging basket and it is full of those streamers..

A. G.

Momence, Ill.

The specimen received is Saxifraga sarmentosa, or Strawberry geranium, or Beefsteak Saxifrage. A very excellent basket plant.

++

### Nursery Seeds.

I planted a lot of nursery seeds in the fall of 1887, and last spring hardly any of the seeds came up. Will esteem it a great favor if you will give me directions how I can be reasonably sure of a good stand. Would like to plant a quantity of seeds the coming spring.

C. H. P.

Cotville, Wash.

Our correspondent should procure a copy of "The Nursery Book," by Bailey. Price \$1.00

++

### Caladiums—Cannas.

Should my caladiums and cannas which are to form a bed next year be potted this winter, so as to be partially grown at the time of setting out? If so would it be best to pot and place in a dark spot until rooted, same as we do for tulips for winter blooming?

AMATEUR.

Troy, N. Y.

They need not be started in advance of planting; but if potted and started anywhere from the first to the middle of April it will be time enough, as it will not be safe to set them out until the last of May or first of June, in the locality named. They need not be set away in the dark after potting.

++

### A Rose by any Other Name.

I am receiving VICK'S MAGAZINE, but in the next issue I desire to learn something about the rose "Wonder of the World." The rose is all right but no one seems to know anything about it. I have 97 varieties of roses but do not care about pretty things with no certain names.

W. B. G.

Louisiana.

There is a rose offered by some dealers called Champion of the World, which originated in Vermont, and is said to be a cross between Hermosa and Magna Charta. This may be what you inquire about.

++

### Clematis.

Please tell me what is the matter with my clematis? It was planted last fall, and grew very nicely and commenced to bloom, and then about the middle of the summer, died down to the ground. It was planted in good soil and well watered. It grew up again about three feet, but did not bloom. Any light will be thankfully received.

S. A. B.

New Salem, O.

From above statement it appears that the plant is all right at present. A careful examination at the time the top died down might have shown the cause of it. Perhaps it may now go on without future trouble. Some injury probably occurred to the root, which was finally overcome.

++

### Orange—Rose.

1.—Will you kindly answer in the "Letter Box" of February's MAGAZINE, how to treat the Otaheite Orange. I had a present of one with about a dozen oranges on, but the leaves are falling off; it is just from a florists. I keep it warm in the dining room, and it has plenty of sun, and warm water.

2.—Will hardy roses four years old bear transplanting? When will be the best time, and how should they be pruned? They are nearly six feet high, and bloom only in June.

E. L.

South Brooklyn, N. Y.

1.—The trouble with the orange is that it is kept too warm, and probably the air of the room is dry. A cool, moist air would suit it well. If you have an unheated room, where there is no danger of frost, place it there and give but little water, and perhaps its condition may improve, but it has had a hard trial since it left the florist's hands.

2.—Transplant the rose bushes early in the spring, before the buds start, and when doing so cut them down to about eight inches from the ground.

++

### Begonias—Liquid Manure.

1.—What was the matter with my tuberous begonias received from you last spring, or what did I do wrong with them? I put them in quart cans, nice dirt, and they grew finely and buds started and dropped off, and kept dropping off, and finally the leaves got soft, and they all fell off. I put weak liquid manure water to them. Was it that or what was it? Sometimes had them on the porch and sometimes in an east window, and they did not get hot sun.

2.—I received a Rex begonia and it did finely, but it was knocked to the ground. I am afraid I have lost it. I send a leaf of it from which will you name it so that I can send in the spring for another?

3.—Will liquid manure hurt begonias?

4.—Which is best, liquid manure or soot tea, for plants?

5.—Why won't my primrose bloom in my sitting room, thermometer never falls to 40° nor rises above 75° where plants are kept?

E. B.

Doddsville, Ill.

1.—If the begonias were put in tin cans without holes for drainage in the bottom of them, that will account for their death. But even if the cans had some holes, the probability is that there was not sufficient drainage. That was the trouble.

2.—The leaf appears to be that of Begonia Rex.

3.—It depends how and when liquid manure is used whether it will benefit or injure plants. It should never be used except when they are growing freely—a plant that is not doing well should not have extra nutriment supplied to it.

4.—Both are good when properly used.

5.—Without knowing all the facts of the case advice cannot be given about the primrose.

++

### Dahlias—Spiraea.

We had a miserable season for dahlias this summer and fall. I wrote to you in July that the red Cactus dahlia was in bloom and promised so well. I had two or three flowers on the one, but none of the other cactus varieties gave flowers, the leaves were of fine growth, but the season was not favorable—the roots were fine when taken up, and we may succeed better next year. You kindly sent me a splendid clump of Coreopsis lanceolata which came while I was not well, so could not thank you then.

Is Spiraea palmata a bright rose color? I used to have in my garden, which is an old-fashioned one of sixty-five years old, several plants of a beautiful rose-colored spiraea about two and one-half feet high, which some people called Soldier's Feather, petals and anthers were all rose-pink—its habit was precisely the same as what was called "Meadow Sweet," which seems to be exactly like the double white spiraea, which is a very pretty perennial of which I do not know the specific name—I have quantities of it—it seems to me that I have heard this double white kind called Spiraea Canadense, but doubt if that is the name, as it certainly has become double by cultivation, the Meadow Sweet being single might be Canadense. The white kind increases very rapidly, the pink seemed more delicate and did not increase as much, nor did it produce as many stems of flowers. The clusters of flowers are flat. I make a little sketch from memory which may guide you—the umbels look a little stiff in this, but they are light and move easily with a wind. I had not your catalogue when I wrote the above; I see now that you mention Spiraea Billardi, S. Bumalda, and Douglassi, besides the Palmata, perhaps my old friend may resemble one of them? Wishing you all a very bright and successful Jubilee Year.

Miss R. M. P.

Brooklyn, N. Y.

Spiraea palmata is an herbaceous plant bearing rosy crimson flowers, and S. palmata elegans has pink flowers. The spiraeas Billardi, Douglassi and Bumalda are shrubby, not herbaceous.

There is no Spiraea Canadense, but there are double forms both of the S. Filipendula and S. Ulmaria. In France the Spiraea lobata is sometimes called the Canadian Queen of the Meadow, but apparently without any reason for so doing, since the plant is a native of Nepaul, Hindustan. Your double flowered white spiraea is probably the double form of Spiraea Ulmaria.

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### Small Greenhouse—Orange Tree.

Will you please give in your MAGAZINE an illustration and description of a cheap way to build a greenhouse about ten feet long, and about eight feet wide, also, the heating of it? How should I cultivate a house orange? The one I received from you does not appear to grow. It keeps green, and that is all. It has good earth and lots of room and light. If you would give this information I would like it very much, for I take a great interest in your MAGAZINE. I always read it through.

R. W.

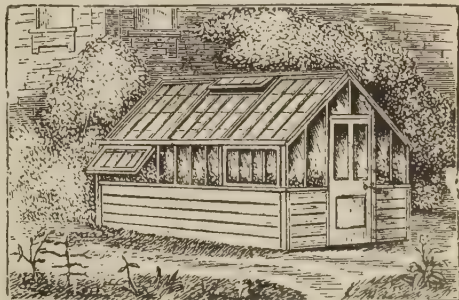
Truro, N. S.

A small greenhouse about eight feet by ten feet is shown in the accompanying engraving. It may be attached by one end to the dwelling house and connected by a door, or it may stand separate in some place where it will be as much as possible sheltered from the prevailing winds. Wherever the spot

may be selected, it should have the best of drainage—not only surface drainage away from it in every direction, but a good underground drain should be supplied, so that by no possibility would water ever stand in the house. The house

may be most economically built by setting down posts at the corners and at the doorways, and one on each of the sides, mid-way between the corners. Cedar posts should be used on account of durability. If there is only one door eight posts would be required, or ten, if two doors.

The posts should be set firmly in the ground, and be cut off evenly at top, at the height of four feet and six inches, and be boarded on each





side to the height of three feet with matched boards, and the space between, which may be six or eight inches, should be filled in with sawdust quite dry, or tan-bark in the same condition. Above the boarding there may be eighteen inches of glass. The illustration shows two swinging sash at the side. But it is not necessary that these should be provided, especially in a cold climate, but instead of one ventilator at the peak of the roof it may be better to have two, one near each end and on opposite sides of the roof. The ventilator sash to be made to hold three lights of glass. The glass to be 12x16 inches, or 12x18 inches. A plate can lie on the top of the posts to receive the ends of the sash-bars. No rafters will be needed in a small house like this. The sash-bars will be fastened at the ridge pole and to the plate. The plate should be beveled on the inside to allow the water to run off.

This house may be fitted up with a bench on each side three feet wide, and a walk in the center two feet wide. If there is but one door, the bench can run across the further end. If the greenhouse is not attached to the dwelling house, it will be best to have but one door, and that at the north end, the house standing north and south, the long way. In this case, there should be a wooden extension at the north end, of at least eight feet, giving a work room eight feet square, with a door at the end entering it from the outside. This wooden portion can be built on the same lines as the rest of the house, with a double roof, the whole structure being 8x18 feet. The heating of a house like this will depend on the climate. At the south a coal-oil stove would serve the purpose. But this might not be sufficient in Nova Scotia. The most desirable way for a cold climate is first to provide a walled up pit or cellar beneath the work room, where may stand a small heater with pipes running from it all around the inside of the greenhouse, below the bench, near the walls, to convey hot water. The cellar will also afford space for the storage of a small amount of coal, and there may, or may not, be an opening into it from the outside, enough to admit of passing in coals.

Three lengths of two-inch pipe all around the house would probably give all the heat that would be required.

#### CAULIFLOWER CULTURE.

THERE is a good profit in growing cauliflowers for market if the conditions are all right, but with the culture often given them, they are not a reliable crop. In growing cauliflowers for sale, the first thing to be considered is a market for these luxuries. The crop is not a staple one, like some which are considered necessities of life, and you must find people who want them, and are able to buy them. In most large villages there is a sufficient number of people who want them to make a market for a few thousand heads. In some seasons, and at some times in the year, there is a good profit in growing them to ship to dealers in the cities, but the most money is made by retailing them in villages, where no one is growing them, and therefore no competition.

It is not best to economize too much in purchasing seeds. The higher priced strains of white cauliflowers, where the type has become established by careful selection for several years, are more reliable in heading, and the whiter the heads the better they will sell in the market. The large pure white curds, with the leaves trimmed nicely around them, attract the eye, and people buy them because they "look nice." The Early Snowball is the standard with many people, and probably more extensively grown than any other variety, and is usually very satisfactory. I make the first sowing of the seed in a hotbed in March; a little later I sow more seeds in a coldframe, and sow at different times in the open ground from April until June. My plan is to have only a small part of the crop mature at one time, for the leaves will soon grow through the heads if they are not marketed at the right time.

When making the seed bed for growing the plants in open ground, I give it a good dressing of poultry manure or commercial fertilizer, also lime or ashes, to prevent the club-foot from attacking the plants. The fertilizer is spaded in and the surface raked down fine. The seed is sown in shallow drills about eight inches apart, and trod in with the feet, if the ground is dry, and covered with about one-half an inch of soil, drawn over with the back of the rake. Water the bed frequently, if the weather is dry, and in about one month the plants will be ready for transplanting.

A deep, moist, clay soil is the best for cauliflowers, although good crops can be grown on any good garden soil. I cover the ground two or three inches deep with stable manure, and plow it in. Then harrow and furrow two and one-half feet apart. If I have well rotted manure, I scatter it in the furrow, and mix it with the soil with the cultivator; or, if the manure is not at hand, I set the plants and in a few days apply around them, a little commercial fertilizer that is rich in nitrogen. Vegetables of which the leaves or stalks are the edible parts need plenty of nitrogen in an available form. The plants are transplanted at different times from May until June. Cauliflower plants from the hotbed should

not be set too early, unless they are well hardened, for they are more easily injured by frosts than cabbages. I do the most of the cultivation with the wheel hoe and horse cultivator.

To insure success in a dry season, one must have some means of irrigation. I have now irrigating works in my market garden, so that I may be prepared for drouths when they come. The plants should not stop growing at any time, hence the importance of irrigating them during a drouth.

I plan to have the greater part of my crop-ready for market in September and October, when there is a demand for the heads for pickling. I have sometimes been quite successful in growing cauliflowers in my strawberry bed during the first year while growing the plants. I set the strawberries in the spring in rows three and one-half feet apart, and then run the cultivator down the rows, pulverizing the soil very fine, and then opening a furrow three or four inches deep half way between the rows of strawberry plants, I set the cauliflower plants in it. The strawberries and cauliflowers are cultivated with the wheel hoe until the runners are allowed to grow on the strawberries, when the most of the work must be done with the hoe. The runners are kept off the strawberries until late in July, then they are trained in narrow rows for a few weeks longer. Cauliflowers grow more upright than cabbages, and I remove the outside leaves when



SNOWBALL CAULIFLOWER

they are nearly grown. The early cauliflowers will be marketed before the strawberries need the room, and the late ones will not be much in the way of the strawberries, as the runners will set close to them. I do not think that everyone will succeed with this plan of intensive culture under ordinary conditions, for so many plants growing close together require large quantities of plant food, and water. With the very liberal use of fertilizers, and water available for irrigation, I expect to make a success of the plan. Cauliflowers will not stand as hard freezing as cabbages and if the late ones are not all sold before the hard freezes, they may be taken up and planted in a cold frame, or in moist earth in the cellar, where they may be preserved for several weeks. My cauliflowers are mostly sold from the market wagon with other vegetables, and retail from eight to fifteen cents. Sometimes when I have a surplus I ship them to a commission merchant in the city, when less than one-half the above prices are usually realized.

Delaware County, N. Y.

W. H. JENKINS.

\* \*

#### Bread Cast Upon the Waters.

A quarter of a century ago I found it necessary to take a few years rest from literary labor. An editor of my acquaintance, having the year before received a generous package of seeds from James Vick, made me a present of what he had left over after planting his small garden plat in the city. He said, "Since you are going to try digging in the earth for your health, you may be able to make use of these seeds. You had better try them beforehand; for being a year old they may not grow." The seeds were planted on soil that had never before borne a crop except the virgin forest. What I want to say is, that the seeds grew, without an exception, and that the crop raised from them astonished the neighborhood. Such radishes, and sweet corn, and flowers as we had! I can see them, and taste them, and smell them yet. We were delighted, and have felt, ever since, that seeds from Vick's were perfectly safe. We have seldom bought anywhere else, and have seldom been disappointed. That little box of left-over seeds has spread its influence far and wide. And this little testimonial is given in the hope of extending that influence still further.

G. H. BELL.

Battle Creek, Mich.



**SALVATION FOR FLOWERS.**

**FACTS.**—Winter coming. Flowers waiting calmly to be frozen to death.

**CONUNDRUM.**—How to save them?

**STOCK IN TRADE.**—A sheet of zinc a yard square, and my bed room twelve feet square, with a south window, which was warmed by day by means of the stove pipe from the dining room stove.

I partitioned off one corner three and one-half feet by five feet, made a "cellar" a yard square and 14 inches high, which I covered with my zinc, made steep stairs above it to the ceiling, and then added shelves wherever I could find space to put one, and filled "my greenhouse" with 200 plants before severe winter weather set in. I used this dark cellar for starting my bulbs in, but when cold weather came, I put a large lamp in it, which burned one cent's worth of kerosene each night. The door to the cellar, or stove, or heat economizer, as you may please to term it, opens into my bed room, through which door, holes are bored for draft below and ventilation above, so the holes are just a foot apart. If the lamp should smoke, the smell notifies me and I awake, and turn the lamp down lower. In this way no smoke or gas from the lamp reaches the flowers. The entrance to the greenhouse is also from my bedroom, and beyond the "stove" or "cellar" on top of the zinc, I put an inch of sand which I wet at night pretty thoroughly, but by morning the lamp had dried it, and the room was filled with warm steam.

The cost was four dollars, but the partition could be made with old bed quilts. I have not lost a plant from frost this winter, though when a zero blizzard struck the south window, two cotton curtains and two curtains made of newspapers pasted together, were not too much to enable a lamp in the greenhouse, as well as one under it, to keep the heat up to 50°.

I made a mistake, by putting some shelves close up to the window frame on either side. I have since learned that the shelves should be two inches away from the frame, so as to allow the curtains to roll down easily, and so that they could be fastened down to keep the cold wind out.

**RESULT.**—Some flowers in bloom all the time, including six dozen bulbs that are "at it yet." This is my "much or little" greenhouse, but if any one has \$10 to spare, I would recommend a larger room, and the smoke of the lamp to be conducted through a pipe running through the greenhouse, thus economizing more of the heat, as well as a radiator on the top of the lamp, in order to get out of the lamp "all that there is in it." Coal smoke and gas are death on plants. Water and warmth are life.

*Shenandoah, Iowa.* DR. H. DURHAM.

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**SOLANUM CAPSICASTRUM.**

A handsome specimen of this bright berried plant, procured before the winter holidays, has ever since proved to be very attractive, both at the window and as a table plant. As this so-called Jerusalem Cherry is thrifty and easily grown, it should oftener be seen as a window plant. A writer in a late number of the *Gardener's Chronicle* says of it: "If this plant be well grown, and an abundant crop of highly colored berries obtained, it remains unsurpassed in its effectiveness as a decorative plant during the Christmas season. In the shortest days of winter these bright berry-bearing plants are especially appreciated in the dwelling-house,

where they introduce a desirable change from the type of plants used for furnishing the vases during other portions of the year. There could hardly be a class of winter decorative plants that could withstand the close, dry atmosphere of living rooms so satisfactorily as this Solanum, moreover it is easy of propagation and cultivation."

Seeds can be sown now, or later in the spring, and plants be brought on so as to produce a crop of berries in the autumn which will be ripe by December. The plants can be kept over to advantage for three or four years, increasing in size and giving larger crops of berries.

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**THE DAYBREAK ASTER.**

Perhaps it is superfluous for me to add any praise to the sterling little Daybreak aster, but it proved so very satisfactory in my garden last summer that I should like to say just a few words in its favor. I had an oblong bed of about one hundred asters of different kinds, but of all of them the little Daybreaks were first singled out for admiration. The plants were some over a foot high, and had a countless number of branches, each tipped with a round, perfect little ball of white, with a suggestion of soft sea-shell pink at the heart—a color which is very rare, and found in no other flower I recall at present. At any rate it is a beautiful color and a beautiful flower.

The seeds were sown in a hot-bed in April, and the plants transplanted in June, setting them a foot apart, in good, porous garden loam, enriched with thoroughly decayed manure. They were hoed and watered bountifully, and always seemed thrifty and healthy. In contrast with the large feathery Comet asters they were unique. Truly, the Daybreak comes near being an ideal aster.

BENJ. B. KEECH.

*New York.*

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**VEGETABLES UNDER GLASS.**

Fine specimens of cauliflower grown under glass were exhibited by A. Harrington at the meeting last month of the New Jersey Horticultural Society. The specimens were small but he stated that the quality was much superior to specimens grown in the open air. It takes ten weeks to raise a crop. He gave an instance of a New York gardener marketing a crop of cauliflower of this kind at \$4 to \$6 a dozen heads. He also raises, under similar conditions, beet greens, French carrots, lettuce, onions from sets, and stated that asparagus and sea kale can also be profitably produced, and mushrooms and rhubarb can be raised under the benches.

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**NEW TERRITORIES.**

The question of the bearings of our federal Constitution on the government of newly acquired territories, about which so much haze seems to have gathered in the popular mind, is very clearly and exhaustively treated in the *American Monthly Review of Reviews* for January by Prof. Harry Pratt Judson, of the University of Chicago. Professor Judson reaches the conclusion that the Constitution presents no difficulties whatever to our acquisition and control of such territories as the Philippines, for example.

**ASPARAGUS RUST—CLUB ROOT.**

At the late annual meeting of the New Jersey Horticultural society, as reported in *American Agriculturist*, Prof. Halsted, in discussing some of the Horticultural problems of the year, stated that asparagus rust was much less abundant in 1898 than in the preceeding years. Spraying with bordeaux mixture had reduced the damage from 11 to 1 per cent. in many instances. Do not have the mixture too strong, as the delicate foliage of the asparagus is liable to be injured. The disease is now known through New England, New York, New Jersey, Delaware, Pennsylvania, south to Georgia and west to Michigan. Experiments during the past four years clearly show that the club root of such vegetables as turnips, cabbages and the like may be held in check by the use of sulphur. The fungicide retains its power for a long time. Kainit has also a beneficial effect and in connection with sulphur, good crops and comparatively clean roots may be produced upon land which is thoroughly filled with the germs of disease. Apply 300 or 400 lbs. of sulphur to the same amount of kainit. Mix these substances and work thoroughly into the soil where the crop is to be grown.

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**THE LAND OF WASHINGTON.**

The American people revere Washington—the father of his country—and are ever on the move in quest of new homes in the land he gave them. There is plenty of room for many thousands of farmers, ranchers, stockmen, sheepmen, dairymen, lumbermen, and others engaged in productive industries, in the New Northwest. For information about the development of this great food producing, hunting and fishing country—the land of flowers—one should read the up-to-date *FARMER AND DAIRYMAN*, the oldest, only illustrated, and most prosperous agricultural journal on the Pacific Coast. Published weekly at \$1.00 a year. JOEL SHOMAKER, Editor, North Yakima, Washington.

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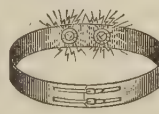
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An old tooth brush for plant scale.

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Do not overlook a pinch of lettuce seed started in the window for early use.

A pound of salt, to each yard of surface, would help any asparagus bed that has never been salted.

The common cockscomb (*Celosia*) is Asiatic. It was introduced more than four hundred years ago.

If *maurandya* seed does not start quickly, do not turn out the soil and say that the seed is not good. This seed, like some others, starts slowly.

Thank you for the clubs. We enjoy being hit, because every hit enables us to make a better magazine. A gardening journal thrives on a large subscription list. The more the better.

Many a plant that is hardy within the Arctic circle may be killed in our latitude when exposed to the hot suns of February. The difference in the situation is that in their native regions such plants are covered with that best of protectors, snow, while here they may be exposed. The hint is, to cover now any plants in the open border which may not be covered.

Charcoal in potting soil. Its advantages are several. Besides rendering the soil porous it sweetens it, because of its property of absorbing carbonic acid and other gases, yielding them up to plants as required for nourishment. It may be applied to the most delicate plant without danger. A piece of charcoal the size of a walnut, placed in a hyacinth glass, will keep the water pure.

Clematis dying out. There is much complaint that clematis plants are short-lived, and this is quite true under defective culture. To insure long life to these attractive vines, one of the first requisites is a deeply trenched and well drained soil. If it is of a light, loamy character, all the better, but if heavy it can be made fit by mixing leaf soil or other vegetable humus with it. The soil likewise should be moderately rich. Where there is a public water system, and hydrant water is cheap, the plants sometimes become short-lived because of excessive watering. Such plants seem to flourish for a year or two and then fail.

Half-crops. A recent bulletin from the Cornell Experiment Farm says that the potato crop of the state is not more than one-half what it should be, and what it would be, were better methods of culture practiced. We believe that statement is one of wide application outside of the potato field. With some special advantages for observation, the writer has again and again

observed that the most successful gardeners practice the most thorough tillage, and the same applies also to fruit growing, even to apples. On the other hand, when ill-cultivated and weedy gardens are met you may almost surely find a proprietor who says raising crops doesn't pay.

Cloth-covered hotbeds. Sashes covered with prepared cotton-cloth, afford protection second only to glass, which is much more expensive, in bringing along plants in the spring. As this is the time when one should calculate on his needs for spring plant raising a little later, the following hints may be of use in preparing the cloth. Use the thinnest unbleached white cotton, and tack it over the frames to be used on the bed. For filling the cloth, take unboiled linseed oil, into each pint of which thoroughly stir one beaten egg. Apply this to the top-side of the muslin with a brush, in amount to completely saturate the cloth. By this means the muslin will be both waterproof and translucent, the egg contributing to the latter effect. While cloth sashes are not as effective against cold as glass, yet with care in providing extra cover when it is very cold, they answer admirably, affording at small cost the means of enlarging the plant accommodations in the spring.

Insect warfare in winter. The writer recalls a case in his early gardening experience which showed conclusively the advantage of winter operations against insects. It had been his custom to reserve a good-sized pile of cow manure each spring, to become old and rotten for special uses about the garden and greenhouse. But he also noticed that the manure became a great harbor for white earth grubs and by fall there were myriads of young larvæ in it. Distributing the manure the following season containing the grubs, simply meant spreading around so many crop destroyers. Presently he learned that by throwing over the old manure loosely in the winter or late fall, so that it could freeze readily in every part, the young grubs were all killed. It proved a valuable lesson, and led him to give increased attention to the winter season as a time to operate against insects. A careful examination of orchard trees at this time will readily reveal the presence of the eggs of the tent caterpillar. These can be found deposited in clusters near the ends of twigs, and every cluster destroyed in the winter means one less brood of the voracious caterpillars the following season. The entire ring of eggs is about as easily destroyed now as one caterpillar would be in summer. By going over orchard and ornamental trees, as well as grape vines, in the winter and removing and burning all loose bark and the rubbish about the trees or vines, many other kinds of insects also can be destroyed. The great advantage of the winter warfare lies in the fact that every hibernating beetle now killed means the lessening of a horde of troubles next season. That fact should prove an inspiration to go on vigorously with the battle at this time.

Raising vegetable plants for sale. There is hardly a community in which the sale of vegetable plants cannot be made to cut quite a figure, if the proper person goes properly about it. The chief demand is for such tender plants as tomato, egg plant and pepper, which require some artificial heat—if it be not more than hotbeds—to raise them. All kitchen gardeners without a hotbed are dependant on those who have one. But besides the tender kinds named,



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WANTED A Horticulturist and Landscape Gardener who has had years of experience, would like a position as general manager or superintendent of an estate. References. Address S. D. FERRIS, Care Vicks Magazine, ROCHESTER, N. Y.



there is sure to be a call for plants of cabbage, cauliflower and celery, for both early and late setting. The former will require hotbeds and frames to bring them along in good season, for attracting buyers, but the others require only to be sown in proper soil and situation outdoors. One point that must always be observed, if handsome, salable plants are to be the result, is this: always grow them to be straight, sturdy and without undue forcing. For one's own planting these characteristics are equally desirable, but if a lot of plants should happen to get slightly out of good shape in the growing they might still answer for home use, while not attractive to buyers. To raise plants of the desired form, attention must be paid to several things. Air them freely when grown under glass; give good light, and beware of crowding at any stage. It is the latter fault that causes drawn and crooked plants. Transplanting the young seedlings is conducive to superior quality of planting stock. Tomato plants under glass are especially apt to shoot up rapidly into bad, leggy specimens before one is aware of it. Watch them closely. For selling the plants it is well to have them in boxes or baskets, containing from a dozen to fifty or more, in some kinds, for the customers convenience. When you have on hand a good stock of plants, do not fail to let others know about it. A neat sign placed in the street, a few weeks before planting time, should properly inform buyers of your ability to serve them.

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#### A CLUB FOR EVERYDAY WOMEN.

The woman's club has become so closely connected with the spirit of our times, that the woman who is debarred from its privileges feels that she is left far behind her sisters in the cities who can identify themselves with as many clubs as they like. These isolated women will, therefore, be glad to know that a woman's club has been organized for their special benefit, by a woman whose earlier years were spent on a farm, and who knows by actual experience how much the farmer's wife needs an interest outside the daily routine of farm life.

This club is called "The Progressive Women of America." It is composed of circles formed wherever seven women will join together for that purpose, and provision is made in the by-laws, under the caption "Non-resident Members," for the women who have no neighbors. Effie W. Merriman, of Minneapolis, Minnesota, is responsible for this club, and has been elected Club Director until June, 1900. She outlines the topics for discussion at the regular meetings of the circles, receives the reports of the meetings from the corresponding secretaries, and combines them into a monthly message, so that each circle may know the results of the discussion in every other circle. This forms the principal educational factor of this club. There is, also, a fraternal side which is deserving of more extended description than can be given in this article, and which shows how well Mrs. Merriman understands the loneliness of the average farmer's wife, for it brings into close sisterly relationship, women who are widely separated, when geographically considered.

The P. W. A. was started in September. In December it had seventeen circles, representing thirteen States, and boasted more than two hundred members. It is something which every woman should investigate for herself. It is bound to grow, and its charter circles will one day be proud of their distinction.

\*\*

#### TO CURE A COLD IN ONE DAY

Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. 25 cents. The genuine has L. B. Q. on each tablet.

#### FISH AS FOOD.

Under this title the Department of Agriculture has issued Farmers' Bulletin, No. 85, by C. F. Langworthy.

From recent data collected by the United States Fish Commission the weight of fish is given as taken from the waters of the various portions of the United States.

"The total weight of these products as they leave the hands of the fishermen is about 1,696,000,000 pounds, representing, as the value of the catch, \$47,180,000. By the processes of canning, salting, smoking, and otherwise preserving, the value of the fish is very much increased.

"Of the very large quantity of fish annually placed on the American market, the greater part is consumed at home, although a portion is prepared in various ways for export. \* \* \* In general, it may be said that fish from clear, cold, or deep water are regarded as preferable to those from shallow or warm water, while fish taken in waters with a rocky or sandy bottom are preferable to those from water with a muddy bottom. Some fish, for instance shad, are at their best during the spawning season, while others should not be eaten during this period. Those fish which feed on small crustacea and other forms of animal and vegetable life, which are their natural food, are preferable to those living upon sewage and other matter which may contaminate the waters.

"The mode of capture also affects the market value. Fish caught by the gills and allowed to die in the water by slow degrees, as is the case where gill nets are used, undergo decomposition very readily and are inferior for food. Fish are often landed alive and allowed to die slowly. This custom is not only inhumane, but lessens the value of the fish. It has been found that fish killed immediately after catching remain firm and bear shipment better than those allowed to die slowly. The quality of the fish is often injured by improper handling in the fishing boats before placing on the market."

A very valuable table is supplied, showing the composition of the different kinds of fish and their nutritive value, at the same time giving similar information in regard to the principal other animal foods, by means of which comparisons may be instituted.

"It is noticeable that many kinds of fish which are known to be wholesome are seldom eaten. Among others may be mentioned the whiting, or silver hake, and the sea robin. The latter are taken in enormous quantities in certain regions. This prejudice against certain fish is largely local; for instance, skates are eaten on the western coast of the United States, but until recently they were regarded as of no value in the East. A few years ago sturgeon and eel were not generally eaten. To-day sturgeon is much prized, and in regions where it was formerly worthless commands a high price. \* \* \*

In general, it may be said that fish,

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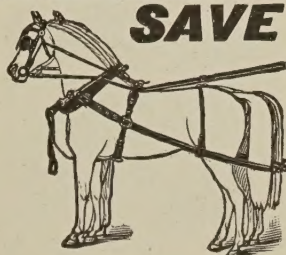
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meat, eggs, milk, etc., also cereals and vegetable foods, all supply fat, the amount varying in the different materials. Fish usually contains less fat than is found in meat. \* \* \* The place of fish in the diet, if judged by its composition, is the same as that of meat; that is, it is supplementary to cereals and other vegetables, the most of which, as wheat, rye, maize, rice, potatoes, etc., are deficient in protein, the chief nutrient in the flesh of fish. \* \* \* Oysters come nearer to milk than almost any other common food material as regards both the amounts and the relative proportions of nutrients. \* \* The total amount of frogs consumed per year for food is considerable. As shown by analysis, frogs' legs contain a considerable amount of protein. Only the hind legs are commonly eaten. The meat on other portions of the body is edible, although the amount is small, and is eaten in some localities. The prejudice which formerly existed against frogs' legs as a food was doubtless based on their appearance or some similar reason, as they are known to be wholesome. \* \* \* There is a widespread notion that fish contains large proportions of phosphorus, and on that account is particularly valuable as brain food. The percentages of phosphorus in specimens thus far analyzed are not larger than are found in the flesh of other animals used for food. But, even if the flesh be richer in phosphorus, there is no experimental evidence to warrant the assumption that fish is more valuable than meats or other food material for the nourishment of the brain.

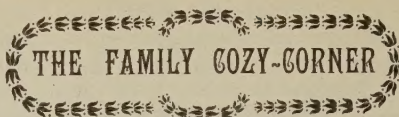
"The opinion of eminent physiologists is that phosphorus is no more essential to the brain than nitrogen, potassium, or any other element which occurs in its tissues. The value attributed to the phosphorus is based on a popular misconception of statements by one of the early writers on such topics. In discussing the belief that 'fish contains certain elements which are adapted in a special manner to renovate the brain and so to support mental labor,' a prominent physiologist says, 'There is no foundation whatever for this view.' \* \* \* It should be stated that most physiologists regard fish as a particularly desirable food for persons of sedentary habits. While, so far as can be learned, such statements do not depend upon experimental evidence, they are thought to embody the result of experience."

The above extracts show, in part, the character of the treatise mentioned, though but very imperfectly. Those interested should procure it.

\* \*

#### SALSIFY.

Salsify, or vegetable oyster, has long been known as a food plant, but not as generally known as it should be. It should be planted and cultivated the same as parsnips or beets. It is not as hardy as parsnips, and should be dug late in the fall and buried or put in the cellar and covered with moist earth. Any cook book will tell you a number of ways to prepare it.—*W. L. Anderson, in American Agriculturist.*



### THE FAMILY COZY-CORNER

#### FLORAL CHAT.

It is a relief to the discouraged homesteader here in Nebraska to see a flowering shrub that looks thrifty "like things do in the east." The *Tamarix Africana* is just such a shrub, and ours have been sorely tried by drought, hot winds and grasshoppers; it has stood the test and in fact seems right at home. We received the plant (a tiny one by mail,) and planted it out just the same as we would a small fruit tree, and gave it about the same care; it needs no protection in winter, and never winter kills; it is seven or eight feet high, and is well proportioned; it is a pyramid of beautiful green and pink in the spring, and furnishes unlimited fern-like green for bouquets all summer. Nature has generously given the Far West the *Yucca filamentosa*; its native home is in our poorest soil; grown in clumps it is an ornament to any lawn, and is at home in a rockery; it is evergreen, and one feels kinder toward it after once seeing our western prairies in winter, with the green clumps dotted over the treeless waste. These plants require no care whatever, and will blossom when four or five years old from the seed; propagated by dividing the roots they will bloom much sooner, usually in about two years. I would advise those who wish to grow them to get the plants, as the seeds germinate slowly and the seedlings are of slow growth. I notice some of the catalogues list the bush morning-glory; it is a floral child of the West; we are proud of it and feel sure when better known it will be a favorite with eastern flower growers. It is perennial, dies down every year, but in May sends up so vigorous a growth that one often thinks of Jack and the bean stalk. Many think it would be impossible to raise dahlias here on account of the high winds. Strange as it may seem to some, the dahlia here does splendidly, and adapts itself to the surroundings. I am quite enthusiastic regarding the dahlia, as it

requires so little care and blooms so profusely that by planting the early as well as the later varieties, one can have flowers all summer. Ethel Vick is one of my favorites; it blossoms early and is so delicate that the flowers can be made into a handsome bouquet. The wave of prosperity seems to have reached our florists. Were catalogues ever so pretty as those of the present season? A. B. H.

*Imperial, Neb.*

++

#### PLANTS FOR THE CEMETERY.

What shall we plant in the cemetery? When our dead slumber, softly, in a large, well shaded and well kept city cemetery, where a careful sexton watches over the flowers and shrubbery, it is possible to grow plants irrespective of their hardiness. We can indulge our sad fancy in the flowers we love and that were dear to the silent sleepers. But, when our "Gardens of God" lie on a bleak, country hillside, windswept and drouth-parched; or, even in our small town, where the most barren of ground is given for "God's Acre," and all the care it receives is from the bereaved women, who grieve and forget not, but whose daily cares, whose treadmills of existence, absorb their moments till everyday duties leave them only time for an occasional hurried visit; then the keeping in order of the last resting place of our loved and lost is often a failure. The soil of the average cemetery is of the poorest quality. Seedlings planted in it perish quickly. Greenhouse plants live out a brief existence and dry up to be blown away like dried grass.

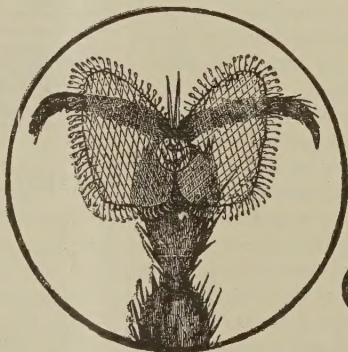
There are plants and shrubs, however, that will grow even in the inhospitable soils of a country cemetery, and chief among them is the *Rosa Wichuraiana*. Three years experience with this rose has only increased its claims with me. It has every quality that a cemetery plant should have. Hardiness, adaptability to any kind of soil, its evergreen beauty, and finally its wealth of white, fragrant, starry bloom, during the hot, dry, months, when other plants are at their worst. I can recommend this plant, especially for situations, where much care cannot be given.



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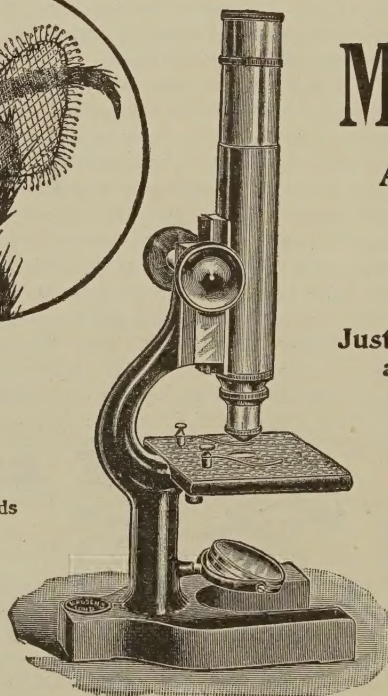
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CHICAGO



Another plant of which I am surprised to find so few specimens in our small cemeteries, is the double Achilæa, called the Pearl. It is a low growing, spreading plant, and an excellent bloomer, bearing in large clusters, pure white, double flowers the size of a ten cent piece. It is also very hardy, and easily grown. For planting on the cemetery lot, the well known Hydrangea paniculata grandiflora is splendid for fall blooming. Madame Plantier is the finest white rose for the same purpose, and the polyantha or fairy roses are perfectly hardy and well adapted for this use. With a little trouble a season of beauty can be secured here as well as at our homes. A clump of lilies of the valley, snowdrops, or a border of crocus will show to the chance visitor that loving friends yet remember the clay that sleeps beneath. When the flowers of these earliest plants shall have faded, a stately snowball, Viburnum opulus, or the lower growing Viburnum plicatum may be opening its beauties to the spring, to be followed in June by the snowy bloom of Madame Plantier rose. Then for the summer months, the polyantha roses, Little White Pet and Clothilde Soupert and Pink Soupert will be found satisfactory for hardiness, freedom of bloom and beauty. These grown between the graves and achillæa upon the mound, will be handsome, and remain so until long after the hydrangea is hanging full of blossoms. Such a collection of plants is easily established and with ordinary care is beautiful for years. There are other good plants, as syringa, Hibiscus Moscheutos, Funkia alba or white day lily, hardy phlox and many others. None of the plants are very expensive and all are hardy.

MRS. M. J. H.

++

THE AUTUMN GARDEN.

When we are planning our garden in the spring, we should look beyond the spring and summer and make some provision that they may be beautiful in autumn. The beauty of many gardens is gone long before the first frost. Occasionally an extra early frost makes our efforts vain, but care in covering on doubtful nights will then save the plants. While the choice of autumn blooming shrubs is somewhat limited, what we have are very beautiful. The Hydrangea paniculata grandiflora is invaluable. Its hardiness, rapid growth, freedom from insects, and long season of bloom are some of its good qualities. Grown in single specimens or massed in clumps or hedges, it is always beautiful. Then comes the Althæa in single or double forms, from pure white to deep purple and variegated; we have a wide range of choice. The old-fashioned waxberry and the common berberry are good for backgrounds, and make a pretty contrast. The dahlia is a great favorite once more. It should be started early to be sure of a long season of bloom. Dahlias are now produced in different forms, such as the tall showy varieties, the dwarf growing kinds, the small flowered or pompons, and the cactus form, each of which has a wide range of color. The aster is autumn's best annual, and its season can be prolonged by sowing at different times. From the tall Branching and Victoria to the Dwarf Bouquet, there is a wide range of choice. They are admirable for massing. The new variety Daybreak must be a fine acquisition. Marigolds are splendid autumn flowers, both the tall and dwarf sorts; so are the single annual sunflowers, which are very hardy. If pansies and sweet peas are kept well picked through the summer, they should give us flowers through the fall. Everyone should have a good collection of perennial phlox, as much as room can be spared for. Surely with so much beauty possible, our gardens should be handsome in the autumn.

C. S. F.

Nassau, N. H.

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Shrunk and sad by the garden wall,  
The hollyhocks stand in a row,  
Never an apple left to fall,  
And down the paths the brown leaves blow.  
Summer is gone, the low winds sigh,  
Through wood and field, ah, well a day!  
Down by the stream the reeds are dry,  
And Pan has forgotten to play.

But when among the shel't'ring pines,  
Where some say summer's asleep,  
And through the copse in mazy lines,  
The velvet-footed woodfolk creep,  
When marmot trips it in the snow,  
And weasel waltzes with the hare,  
Then Pan a frozen reed shall blow,  
And pipe thereon his gayest air.

Stroudwater, Me.

A. M. L.

\*\*

BUTTER AND ORANGES.

The *Pacific Rural Press* notes a discovery made in Holland, which is that a most delicious fragrance attaches to the butter which is kept in an ice chest in company with one, two or half a dozen oranges. The butter absorbed the "zest" of the orange, *i. e.*, the oily moist that is thrown off in the atmosphere when an orange is squeezed or cut, and which is even more delicious than the taste of the fruit itself. If there be anything more delicious than the best butter, it is the little tub-shaped bundles which have absorbed the citrus flavor of the oranges.

The fact of the butter proving so sensitive is enough to make one credit the warnings against allowing butter to remain shut up with meat, fish and other foods capable of exhaling any aroma.

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## ARNOLD Steam Coffee Cookers.

There is no better way of making coffee than by steaming it. By this process you secure all that is delicious and beneficial, and reject the rank, injurious part. Those who like coffee and think their stomach cannot bear it, find the difficulty entirely overcome by using this device. They are cheap, simple, and effective, and require no skill to use them.

One-third less coffee is required; no eggs are needed to settle it; the coffee cannot boil, hence all the fine aroma is retained.

THREE-QUART TIN POT.

Regular price, \$1.75 Amount of credit allowed, \$0.62 Cash payment, \$1.13

TWO QUART NICKEL-PLATED POT.

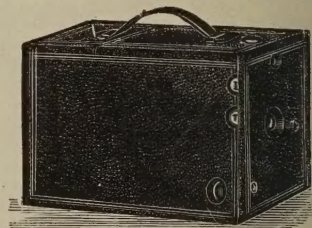
Regular price, \$2.00 Amount of credit allowed, \$0.75 Cash payment, \$1.25

## THE GEM POCO CAMERA.

The GEM POCO CAMERA here offered is by no means a toy Camera, but a practical instrument of first-class manufacture, embracing latest improvements of utility and efficiency. A most decided advantage is a fixed lens that is always in focus, the use of the finders simply determining the portion or position of view one may wish to take.

The Camera is neatly finished throughout, compactly built, and covered with fine morocco grain leather, a good leather handle, two tripod plates, and two large brilliant oblong finders; it is equipped with a new Gem lens of great depth of focus, giving clear pictures to the very edge of plates; also a Rochester Safety Shutter, arranged for time or instantaneous exposure. Size of Camera, 4½x6x7 inches; it weighs one pound and makes a picture 3¼x4¼ inches, sharp to the edge. Each Camera is supplied with one Dry Plate Holder.

Regular price, \$4.00 Amount of credit allowed, \$1.50 Cash payment, \$2.50



## SUNART JR. NO. 1, CAMERA.

SUNART JUNIOR No. 1 Cameras, are compact and convenient little instruments, are up-to-date in their construction and ready for work whenever a picture is desired to be taken.

These Cameras are fitted with View Finders, Tripod Screw Sockets for either vertical or horizontal pictures, and space at the back for carrying double Plate Holders; they are neatly covered with black or tan, with leather handle.

The Lenses are achromatic, with a fixed focus, and will take a sharp picture, 3¼x4¼ inches, any distance beyond eight feet; the shutter is new and novel, and is adapted for either time or instantaneous pictures; the double Plate Holders have hard rubber slides and lock to prevent accidental exposure.



A book of instructions in Amateur Photography accompanies each instrument, and one double Plate holder.

Regular price, \$5.00 Amount of credit allowed, \$2.00 Cash payment, \$3.00

JAMES VICKS SONS, SEEDSMEN, ROCHESTER, N. Y.